



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/742,080	12/22/2000	Chieko Aoki	0229-0629P	6967

7590 07/26/2004

BIRCH, STEWART, KOLASCH & BIRCH, LLP
P.O. Box 747
Falls Church, VA 22040-0747

EXAMINER

KNABLE, GEOFFREY L

ART UNIT PAPER NUMBER

1733

DATE MAILED: 07/26/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/742,080	Applicant(s) AOKI ET AL.	
	Examiner Geoffrey L. Knable	Art Unit 1733	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 April 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,9-12,16,17 and 19-34 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,9-12,16,17 and 19-34 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

1. Claims 1, 9-12, 16, 17 and 19-34 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The new matter rejection of claims 1 and 16 is maintained for substantially the same reasons as set forth in the last office action, it being clear that claim 1 requires a foamable liquid noise damper (e.g. note the last two lines of the claim) but it is not seen that the original disclosure describes an emulsion of an elastomer that is foamable with a foamed ratio, etc. as claimed. Note again that the original description of an emulsion of an elastomer seems to only be explicitly described in the context of the "Liquid noise damper 2 (emulsion)," but not clearly in the context of the foam embodiment (identified as "Liquid noise damper 3 (Foamy solution)"). Further, although mention is made of "rubber latex" in the context of the foamy solution embodiment, this is followed by its own list of materials which does not describe "an emulsion of an elastomer" as in claim 1. It therefore is considered that this subject matter was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention, i.e. it is considered to be new matter.

The description/new matter rejection of claim 16 is also maintained for the reasons set forth in the last office action. Note again that in reference to claim 16, as with claim 1, it is not entirely clear that original descriptive support exists for describing

the elastomer as being one of these specifically named elastomers as these are only explicitly described in the context of the "Liquid noise damper 2 (emulsion)" and not clearly in the context of a foam embodiment to which the claims are directed. Although mention is made of rubber latex in the context of the foamy solution embodiment, this is followed by its own list of materials which do not include the materials of claim 16. It therefore is considered that this subject matter was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention, i.e. it is considered to be new matter.

Claims 17, 19 and 20 have been amended to define in the last four lines that

"wherein said injection volume is such that when the liquid damper stands in a lower part of the tire hollow, the tire hollow is not fully blocked and a narrow part remains, and said foamed volume is such that the tire hollow has a part closed by the foamed damper."

It however is not seen where the original disclosure describes such a requirement either explicitly or implicitly and as such, it is considered that this was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention, i.e. it is considered to be new matter. Although there is some discussion of filling to form a narrow part or closed/blocked part (figs. 2 and 3), this is not described in the context of having a foam volume that forms a closed space while the original injected volume forms a narrow open space. It should additionally be noted that this new language, when read in the context of the claimed range for injection volume to hollow volume, also seems to present an inconsistency that also lacks

original descriptive support—i.e. if for example the tire is filled to 0.6 of the tire volume, it seems unlikely if not impossible that a hollow would or could remain. In any event, these ranges were also never described in the context of and in combination with these newly claimed requirements.

2. Claims 1, 9-12, 16, 17 and 19-34 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In the last two lines of claim 1, no antecedent has been established for “the foamed volume” or “the unfoamed volume” (since “foamable” was removed from the claim). Likewise, no antecedent has been established for “the foamable liquid” referenced in each of claims 9, 10 and 11.

The new last four lines of claims 17, 19 and 20, in addition being considered to lack original descriptive support (i.e. be new matter as noted above), also present a new ambiguity in that it is not clear how an injection volume could be as much as 0.6 times the hollow volume but still leave a narrow part as now claimed, this raising an ambiguity in the scope of how the narrow part is defined.

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

4. Claims 1, 9-12, 16-17 and 23-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over EP 753420 to Gerresheim et al.

Gerresheim et al. is applied for the same reasons set forth in the last office action.

5. Claims 19, 20, 21 and 22 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Hicks (US 2,797,721).

Hicks is applied for the same reasons as set forth in the last office action. As to the new language at the last four lines of claims 19 and 20, it is again noted that this language is considered to be new matter and further introduces an ambiguity in assessing the scope of the claims. In any event, insofar as an injection volume of up to 0.6 times the hollow volume is within the scope of the present claims, it is not considered unreasonable to consider that the reference teaching of 35-90% (col. 5, lines 25-31) of a liquid tire ballast within the tire interior chamber (and thus inclusive of values of 35-60% - well within the claimed range) would suggest a filling operable as claimed.

6. Claims 27-30 and 31-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hicks (US 2,797,721) as applied to claims 19 and 20 above, and further in view of EP 753420 to Gerresheim et al. as applied in the last office action.

7. Applicant's arguments filed 4-6-2004 have been fully considered but they are not persuasive.

As to the 35 USC 112, first paragraph rejection, applicant has argued that "claim 1 does not relate to a foamy solution" and does not understand the examiner's comments with respect to "the embodiment to which the claims are now restricted" since a restriction requirement was not made in this application. First, claim 1 still requires a foamable noise damper—note the last two lines of the claim. This rejection is therefore still proper and will be maintained. Further, the examiner was not referring to a restriction

requirement but rather was simply pointing out that the only originally described embodiment that described a foamable material was the "Liquid noise damper 3 (Foamy solution)" embodiment and since the claims required that the damper was a foamable material/foamable to a certain degree, the claims were (and still are) read as being in reference to or "restricted" to this embodiment—i.e. support for further specifics for this material would also have to be found in the description for this embodiment (absent some convincing argument to the contrary).

As to the 35 USC 112, second paragraph rejection with respect to the foamed ratio, this rejection has been withdrawn in light of applicant's comments confirming that this is simply a capability of the claimed material.

It is additionally noted that other new 35 USC 112 rejections were necessitated by the amendment, these being defined within the statements of rejection above.

As to the prior art rejection over EP '420 to Gerresheim et al., it is argued that

"It is clear from the reference that this material is used to seal punctures in tires. The puncture sealant such as this is a viscous liquid which cannot be foamable by the rotation of the tire. This is in contrast to the present claimed liquid which is a highly mobile liquid. Thus, the puncture sealant in the reference cannot be a foamable liquid as presently claimed. Further, there is no indication that the material acts as a noise damper in any case."

These arguments have been carefully considered but they, in only conclusory fashion, urge that the reference material is a "viscous liquid" whereas the claimed liquid is a "highly mobile liquid". No convincingly line of argument or factual basis has however been presented to support such a distinction. The EP '420 sealant is clearly a liquid which moves or distributes itself during running of the tire (e.g. note page 5, line 34) and the claims are not considered to define the material viscosity further in a

manner that would define over that taught by Gerresheim et al. In particular, note for example that Gerresheim et al. describes the solid contents for the material as 40-70% by weight (page 3, lines 21+), the remainder being the carrier (water). This seems entirely consistent with applicant's described solid contents (e.g. page 5, lines 2-9). Thus, although the reference does not indicate whether the material is capable of irregularly changing the area as claimed, given the similarity in materials used (esp. rubber latex), and apparently the similarity in solids contents as well as the fact that this material is apparently a flowable and foamable liquid at what are considered to have been amounts consistent with that claimed (note again the claims are inclusive of as little as 0.001 times the tire volume - note the last office action), it is submitted that reasonable basis exists to expect that this material would be capable of irregularly changing the area with rotation (at least at some rotational speeds) as claimed so as to teach or render obvious what is presently claimed, the burden properly shifting to applicant to show or establish that the teaching of this reference would not teach or render obvious a tire/rim system that meets the present claims.

As to Hicks, it is argued that this reference does not refer to it as a noise damper. While it is agreed that the reference does not refer to it as a noise damper and likewise does not indicate whether the material is capable of irregularly changing the area as claimed, as noted in the last office action, being a flowable and foamable liquid at amounts and ratios consistent with that claimed, it is submitted that reasonable basis exists to expect that this material would be capable of irregularly changing the area with rotation (*at least at some rotational speeds - e.g. even if the claim were read to define*

over complete filling of the cavity with the foam, the Hicks tires will certainly not completely foam at low speeds or on startup – the claims do not in any way define over this) as claimed so as to teach or render obvious what is presently claimed, the burden properly shifting to applicant to show or establish that the teaching of this reference would not teach or render obvious a tire/rim system that meets the present claims.

With respect to Hicks, it is also argued that although "the reference does state that air is whipped into the liquid to provide a compressible frothy liquid, it does not state that it is a foamable liquid under use conditions." This argument has been considered but is not understood. If this is not within the claimed definition of "foamable", then it is not clear what is meant by this term. The term "foamable" has been read consistent with the original disclosure as including an e.g. water/surfactant material that foams or "froths" during the motion of the tire in use—this seems entirely consistent with the frothing in the reference and thus applicant's argument to the contrary are unconvincing. As to the new features in claims 19 and 20, note the statement of rejection.

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the


Art Unit: 1733

shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Geoffrey L. Knable whose telephone number is 571-272-1220. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Blaine Copenheaver can be reached on 571-272-1156. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Geoffrey L. Knable
Primary Examiner
Art Unit 1733

G. Knable
July 22, 2004